

Application No. 10/049,417
Response dated: May 31, 2006
In Reply to Restriction Requirement dated: May 2, 2006

Amendment to the Claims

Please replace the current claim listing with the following rewritten version:

1. (Previously Presented) Audio signal format comprising N components, each of said N components representing a direction, said N components being uncorrelated.
2. (Previously Presented) The audio signal format according to claim 1, wherein the number of said N components is at least three (3).
3. (Previously Presented) The audio signal format according to claim 1, wherein the number of said N components is at least ten (10).
4. (Previously Presented) The audio signal format according to claim 1, wherein the said directions are three-dimensional directions.
5. (Previously Presented) The audio signal format according to claim 1, wherein said directions are angled in relation to a common reference plane and all of said directions to one side of the common reference plane have been placed with a substantially same angle in relation to the common reference plane.
6. (Previously Presented) The audio signal format according to claim 1, wherein said directions are placed on both sides of a common reference plane, where said directions are angled in relation to the common reference plane and all of said directions to one side of the common reference plane have been placed with a substantially same angle in relation to the common reference plane.
7. (Previously Presented) The audio signal format according to claim 5, wherein an angle of the directions on the one side of the common reference plane and an angle of the

Application No. 10/049,417

Response dated: May 31, 2006

In Reply to Restriction Requirement dated: May 2, 2006

directions on the other side of said common reference plane are substantially equal.

8. (Previously Presented) The audio signal format according to claim 1, wherein said directions are distributed among all directions.

9. (Previously Presented) The audio signal format according to claim 1, wherein said directions are distributed with a larger proportion of directions in areas with a relatively high density of sound signals than in areas with a relatively low proportion of sound signals.

10. (Previously Presented) The audio signal format according to claim 1, wherein said directions are distributed with a larger proportion of directions in areas in which human perception of sound signals is relatively sharp.

11. (Previously Presented) A method of representing an audio signal, wherein said audio signal is decomposed to a signal comprising N directional components and according to an audio signal format comprising N components, each of said N components representing a direction, said N components being uncorrelated and said N components being defined according to a uniform or experience-based distribution.

12. (Previously Presented) A method of processing audio signals, wherein said audio signals comprising M sub-signals, each of the said M sub-signals comprising N components, each of said N components representing a direction;

wherein said M sub-signals are added to form a sum-signal comprising N sum-components, each of said sum-components representing a direction, each of said sum-components being a sum of said M sub-signals corresponding to said N components.

13. (Previously Presented) A method of processing audio signals, said audio signals comprising M sub-signals, each of said M sub-signals comprising N components,

Application No. 10/049,417

Response dated: May 31, 2006

In Reply to Restriction Requirement dated: May 2, 2006

each of said N components representing a direction;

wherein said M sub-signals are results of a room-simulation using room-simulators,

wherein said M sub-signals are added to form a sum-signal comprising N sum-components, each of said N sum-components representing a direction, each of said N sum-components being a sum of said M sub-signals corresponding to said N components.

14. (Previously Presented) A method of representing an audio signal, comprising the step of establishing at least two directional signal components, said directional signal components being uncorrelated.

15. (Previously Presented) The method of representing an audio signal according to claim 14, wherein said audio signal is a room processed signal.

16. (Previously Presented) The method according to claim 14, further comprising combining signals established by said method of representing an audio signal, wherein at least two audio signals are combined into one signal by means of an adding.

17. (Currently Amended) A method of decoding a first audio signal of an audio signal format comprising M directional components, each of said M components representing a direction, said M components being uncorrelated, into a second audio signal of an audio signal format comprising N directional components, each of said N components representing a direction, said N components being uncorrelated said method comprising

_____transforming M input directional components to N output directional components, said M input directional components representing a room simulated audio signal, ~~said M input directional components being uncorrelated~~ wherein said M directional components form an audio signal in accordance with an audio signal format comprising M components, each of said M components representing a direction, said M components being uncorrelated and said M components being defined according to a uniform or

Application No. 10/049,417

Response dated: May 31, 2006

In Reply to Restriction Requirement dated: May 2, 2006

experience-based distribution; and

~~wherein said N directional components form an audio signal in accordance with an audio signal format comprising N components, each of said N components representing a direction, said N components being uncorrelated and said N components being defined according to a uniform or experience-based distribution.~~

18. (Currently Amended) An audio signal rendering system comprising:

at least one input for receiving the audio signal according to an audio signal format comprising M directional components, each of said M components representing a direction, said M components being uncorrelated; and

means for transforming said M input directional components into N output channels according to at least one rendering method stored in associated storing means.

19. (Previously Presented) The rendering system according to claim 18, wherein said means for transforming includes a gain matrix.

20. (Previously Presented) The rendering system according to claim 18, wherein said at least one rendering method stored in said storing means is exchanged by means of a suitable software transmitting and/or receiving interface.

21. (Previously Presented) The rendering system according to claim 18, further comprising a user interface adapted for selecting at least two different predefined rendering methods stored in said storing means.

22. (Previously Presented) The rendering system according to claim 18, further comprising a set of output channel connectors of which the rendering method defines a subset of output channel connectors to be activated when applying the transforming of said M input directional components into N output channels.

Application No. 10/049,417

Response dated: May 31, 2006

In Reply to Restriction Requirement dated: May 2, 2006

23. (Currently Amended) A multi-channel data carrier comprising a plurality of audio channels representing an audio signal according to an audio signal format comprising at least two components, each of said at least two components representing a direction, said at least two components being uncorrelated, wherein, at least two of said audio channels representing a directional signal with respect to a virtual listener/reference position.

24. (Previously Presented) The multi-channel data carrier according to claim 23, wherein the audio channels are established independently of a subsequent rendering system.

25. (Previously Presented) The multi-channel data carrier according to claim 23, wherein the number of said audio channels is at least eight (8).

26. (Previously Presented) The multi-channel data carrier according to claim 23, wherein said at least two of the audio channels are uncorrelated.

27. (Previously Presented) The multi-channel data carrier according to claim 23, wherein said at least two of the audio channels are stored at the data carrier in a compressed state.

28. (Previously Presented) The audio signal format according to claim 1, wherein the number of said N components is at least twenty (20).

29. (Previously Presented) The multi-channel data carrier according to claim 23, wherein the number of said audio channels is at least twenty (20).

30. (Previously Presented) A method of representing an audio signal, wherein said audio signal is decomposed to a signal comprising N directional components and according

Application No. 10/049,417

Response dated: May 31, 2006

In Reply to Restriction Requirement dated: May 2, 2006

to an audio signal format comprising N components, each of said N components representing a direction, said N components being uncorrelated and said N components being defined substantially independently of the intended application of said audio signal.